Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999					
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA5	R-1 ITEM NOMENCLATURE					
	66N					

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total P.E. Cost	.501	11.291	1.140	1.205	1.329	1.399	1.428	1.458	Continuing	Continuing
STANDARD Missile Improvements/K0439/U0439	.501	1.314	1.140	1.205	1.329	1.399	1.428	1.458	Continuing	Continuing
ADSAM Demonstration /K2639/ U2639	0	4.989	0	0	0	0	0	0	0	4989
Optical Correlators/K2640/U2640	0	4.988	0	0	0	0	0	0	0	4988
Quantity of RDT&E Articles & cost										

### A. Mission Description and Budget Item Justification:

(Project U0439) STANDARD Missile fuze and guidance performance degrades when the target is in close proximity to the sea surface. The low altitude improvement program will improve performance against low and very low altitude targets. It will be implemented in two phases: Phase I added a fuze altimeter and trajectory shaping enabling improved target detection to a very low altitude and reduced the effect of multipath on radar returns on guidance performance. Phase II added a moving target indicator (MTI), azimuth sensing fuze, and one other item which greatly improves lethality throughout the SM-2 Block III/IIIA/IIIB engagement envelope and will also improve lethality throughout the SM-2 Block IV engagement envelope. This capability is currently being developed for AEGIS ships. Additionally, an effort will be started to improve performance of the Mk 45 Target Detecting Device (TDD) against advanced threats.

#### FY 1998 ACCOMPLISHMENTS:

(\$.501) Transition/leverage off the MK45 Mod12 TDD Overland Cruise Missile Defense development.

### FY 1999 PLAN:

- (\$1.280) Initiate development of TDD Land Attack Cruise Missile Defense Capability. This will improve target clutter discrimination for overland scenarios by implementing changes to MK45 MOD 12 TDD Design.
- (\$4.863) Continue development and build a miniturized, ruggedized, STANDARD Missile Optical Correlator Co-Processor.
- (\$4.862) Initiate development of the Air Directed Surface—to-Air Missile (ADSAM)
- (\$0.286) Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

#### FY 2000 PLAN:

• (\$1.140) Continue development of Overland Cruise Missile Defense Capability for the MK45 TDD. Begin build-up of integration hardware and planning for flight test.

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Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999					
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA5	R-1 ITEM NOMENCLATURE					
	STANDARD Missile Improvements / PE 0604366N					

В.	Program Change Summary:	EW 1000	EW 1000	EVA	000			
	FW 1000 B 11 d B 1	FY 1998	FY 1999	<u>FY 2</u>				
	FY 1999 President's Budget:	0.523	1.320	1.27	б			
	Appropriated Value	0.549	11.320					
	Adjustments to FY 1998 Appropriated Value/							
	FY 1999 President's Budget							
	a. SBIR reduction	-0.015						
	<ul> <li>b. Congressional undistributed reductions</li> </ul>	-0.015						
	<ul> <li>c. Minor pricing adjustments</li> </ul>	-0.018	-0.029	-0.13	6			
	d. Congressional program increase		10.000					
	FY 2000/01 President's Budget Submit:	0.501	11.291	1.14	0			
	Schedule: Not Applicable.							
	Technical: Not Applicable.							
C.	Other Program Funding Summary: Not applicable.						<b>T</b>	m . 1
	<u>FY 1998</u> <u>FY 1999</u> <u>FY 2000</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To <u>Complete</u>	Total <u>Cost</u>
D. Acquisition Strategy: Not applicable.								
E.	Schedule Profile: Not applicable.							
Ľ.	Schedule Florile. Not applicable.							

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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER	PROJECT NAME AND NUMBER
RDT&E,N/BA 5	STANDARD Missile Improvements 0604366N	STANDARD Missile Improvements K0439/U0439

Cost Categories	Contract	Performing	Total		FY99		FY00				Target
(Tailor to WBS, or System/Item	Method	Activity &	PYs	FY99	Awar	FY00	Award		Cost To	Total	Value of
Requirements)	& Type	Location	Cost	Cost	d	Cost	Date		Complete	Cost	Contract
					Date						
Design and Analysis	WR	NAWC/China Lake	781.0	1.314	11/98	1.140	11/99		Continuing	Cont.	
	WR	NSWC/Dahlgren		1.500	3/99						
		Raytheon		.500	3/99						
		AOS Inc.		1.000	3/99						
		Litton Inc.		1.988	3/99						
		Cruise Missile		4.989	3/99						
		Defense Program									
		Office									
Subtotal Product Development			781.0	11.291		1.140					
Total Cost				11.291		1.140					
Remarks:											
Development Support Equipment											
Software Development			†			<u> </u>					
Training Development											
Integrated Logistics Support			1								

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Exhibit R-3 Project Cost Analysis (Exhibit R-3, Page 3 of 4)

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Exhibit R-3 Cost Analysis										Date: February 1999				
APPROPRIATION/BUDGET ACTIVIT	ГҮ		PROGRAM ELEMENT NAME AND NUMBER							PROJECT NAME AND NUMBER				
RDT&E,N/BA 5			STAN	NDARD M	issile Imp	rovements	0604366N		STANDARD Missile Improvements K0439/U0439					
Configuration Management														
Technical Data														
GFE														
Subtotal Support (Not applicable)														
	Contract	Performing		Total		FY99		FY00					Target	
	Method	Activity &		PYs	FY99	Award	Fy00	Award			Cost To	Total	Value of	
	& Type	Location		Cost	Cost	Date	Cost	Date			Complete	Cost	Contract	
Development Test and Evaluation														
Operational Test and Evaluation														
Tooling														
GFE														
Subtotal T&E (Not applicable)														
Contractor Engineering Support	T	I			1	1	1	1	l	1	I	I	1	
Government Engineering Support														
													1	
Program Management Support Program Management Personnel														
Travel														
****					-								-	
Labor (Research Personnel)					<del>                                     </del>								<del>                                     </del>	
Overhead													<del>                                     </del>	
Subtotal Management (Not														
applicable)	1	1						1	l			1	1	

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Exhibit R-3 Project Cost Analysis (Exhibit R-3, Page 4 of 4)

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